



Building Climate-Smart Post-Harvest Systems

Strengthening Primary, Secondary and Value Addition Technologies for
Small Farmers and Micro Enterprises

An initiative by **SELCO** Foundation



SELCO Foundation is Alleviating Poverty & Fighting Climate Change

Our work spans across livelihoods and healthcare using Decentralised Renewable Energy (DRE) to enhance income, productivity and resilience for underserved communities

ECOSYSTEM APPROACH

SELCO works with farmers, micro businesses and cooperatives to ensure contextual and scalable impact

ENTERPRISE SUPPORT

Assists enterprises in developing, financing and scaling energy efficient solutions for livelihoods

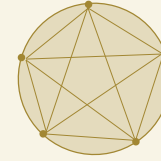
DECENTRALISED INNOVATION

Focuses on local, need based tech adoption, ensuring solutions are accessible, affordable and sustainable

CLIMATE RESILIENCE

Promotes clean energy and resource efficient technologies to combat environmental challenges





SELCO Foundation has been supporting small farmers and micro enterprises across India and, building their long-term capacity to address climate change

By co-creating context-driven solutions, enabling access to finance, and market linkages, SELCO has been strengthening local ecosystems for such these communities

Addressing climate linked agricultural challenges is important for farmers, rural households and micro-businesses



A lot of people depend on agriculture for their livelihood

Agriculture employs ~46% of India's workforce (PLFS 2022), yet contributes only ~18% to GDP (MoSPI, 2023), showing the need for better incomes and reduced drudgery.

Agriculture is an important sector, to maintain India's food security

India produces 330+ million tonnes of foodgrains and 355 million tonnes of horticulture produce annually (MoA&FW, 2023), feeding 1.4 billion people.

Agriculture provides economic stability to rural India

During COVID-19, agriculture was the only sector to record positive growth of 3.6% in 2020-21 (Economic Survey 2021), cushioning mass rural distress.

Today, India
needs to improve
its post-harvest
management
practices

Climate-Smart Agri-
Tech can play a key
role here!



Agriculture Post Harvest Losses

India faces estimated
post harvest losses of
USD ~14 billion per year
(ICAR-CIPHET, 2022).

Loss of Income

Farmers in India lose 15–
25% of their income due to
poor storage, drying and
processing.

Technology is important

Solar dryers can
reduce spoilage
of perishables
by 30–40%,

Efficient processing
technologies can
improve output
recovery by 10–15%,

Building Climate-Smart Post-Harvest Systems



Are you a **technology** and/or a **clean energy enterprise**, **innovating on new technologies** or **taking them to scale**?



Are you working on **primary**, **secondary** or **tertiary agriculture and food processing** technologies?



Do you want to become a
CLIMATE-SMART AGRI-TECH CHAMPION?

In Sept 2025, SELCO Foundation launched an initiative focusing on-
Building Climate-Smart Post-Harvest Systems



An initiative supporting technology and clean energy enterprises **working on innovation and scaling of climate resilient hardware and/or phygital solutions** focusing on agri post-harvest management and food processing.

This includes support to advance **primary, secondary and tertiary processing** technologies.



NEED FOR AN INITIATIVE FOR CLIMATE-SMART AGRI-TECH ENTERPRISES

Enterprises providing hardware and phygital solutions for agri post harvest and food processing, need support to tackle challenges that may arise at various stages, from early innovation to scale and maturity



Resource Mobilization

- ✓ Limited access to capital, skilled workforce, infrastructure
- ✓ High costs for prototyping and iterative developments



Technology Readiness and Co-Creation

- ✓ Lack of testing facilities and weak user feedback loop
- ✓ Difficulty transitioning to market ready product



Market Access and Demand Aggregation

- ✓ High effort and resources for acquisition, supply, servicing
- ✓ Scattered demand, product pricing and service efficiency



Affordability and Financing

- ✓ Limited access to supporting subsidies, schemes, policies
- ✓ High effort and cost for raising capital money



Operational Capacity and Know-How

- ✓ Inadequate internal skills, processes, and systems
- ✓ Limited local engagement, integration while expanding



Institutional and Ecosystem Linkages

- ✓ High costs for trainings, empanelment and certifications
- ✓ Slow regulatory clearances

TYPES OF CLIMATE -SMART AGRI- TECH THAT QUALIFY FOR THE INITIATIVE



LEVEL ONE

Primary Processing Technologies

For early stage processing close to the farmgate, making produce storable, transportable, or ready for further processing.

- Cleaning & grading machines
- Threshing machines
- De-husking & shelling machines
- Milling machines or integrated machines



LEVEL TWO

Secondary Processing Technologies

For value-addition that turns raw or primary produce into higher value or longer lasting consumable products.

- Solar dryers for fruits, vegetables
- Spice grinding machines
- Fruit juicing & pulping machines
- Oil extraction machines (cold pressed or expeller)



LEVEL THREE

Tertiary Processing Technologies

For higher levels of processing to prepare new or modified food products like ready-to-eat or ready-to-cook items.

- Jam & pickle making machines
- Bread & biscuit making machines
- Snack making machines
- Instant mixes & ready-to-eat meal processing machines

GENERAL ELIGIBILITY CRITERIAS FOR ENTERPRISES

From technologies at proof-of-concept stage to proven technologies, SELCO is seeking technology and clean energy enterprises committed to driving lasting impact through climate action



01

Registered Enterprises

A registered company which can include manufacturers, suppliers, dealers, business associates or service providers

02

Hardware is a must

Offering hardware based and/ or phygital innovations and solutions

Integrating energy efficiency and/or clean energy solutions and/or green infrastructure features

03

Agri Post Harvest and Food Processing

Focusing on agri post harvest management (primary, secondary, tertiary processing)

Working with rural enterprises, farmers, labourers, micro-small businesses etc.

04

Long Term Resilience

Enabling access to climate smart, clean energy technology solutions for long term sustainability

Boosting productivity and income generation, and reducing drudgery

WHO ARE YOU?

An Innovator

What You Offer

Offer hardware and/or AI, IoT enabled solutions in pilot testing or MVP development

Who You Serve (User & Sector)

Have conducted or want to conduct proof of concept to clearly identify and target priority user groups and contexts

How You Create Impact

Have solutions which are have the potential to deliver tangible and long term livelihood benefits for small farmers and micro enterprises

WHO ARE YOU?

An Enterprise

What You Offer

Proven MVPs with proof of concept; and gearing up for, or already engaged in scaling

Who You Serve (User & Sector)

Have expanded or want to expand reach into multiple and/or larger underserved user segments

How You Create Impact

Solutions for small farmers and micro enterprises, which are already showing measurable impact, which can be further deepened/ broadened

SUPPORT OFFERED BY THE INITIATIVE

The initiative offers stage specific support for innovation and/or scale

01

Deployment of Climate- Smart Agri-Tech

Provision of support for **hardware development** or deployment of technology

02

Knowledge for Climate- Smart Agri-Tech

Provision of **soft costs** for activities and outputs such as documentation, research, etc.

INNOVATORS

- ✓ System integration and prototyping
- ✓ Building and refining (MVP) Minimum Viable Product
- ✓ Field testing/trials
- ✓ Design and fabrication of the technology product

- ✓ Market and user research
- ✓ Demand validation study
- ✓ Access to subject matter experts and stakeholder networks
- ✓ Internal training and capacity building

ENTERPRISE

- ✓ Deployment of energy efficient and/or solar powered + energy efficient technologies
- ✓ Integration of solar into existing systems
- ✓ O&M support

- ✓ Scoping study, documentation and feasibility assessments
- ✓ Development of training and outreach materials
- ✓ Access to stakeholder networks and expert consultations
- ✓ Participation in regional and national events and exhibitions

Apply Now to SELCO's Initiative on 'Building Climate-Smart Post- Harvest Systems' and become a CLIMATE-SMART AGRI-TECH CHAMPION!



SELCO has published a [Terms of Reference \(ToR\)](#), including details on the initiative scope, duration and other guidelines along with a link to the application form. Follow these steps to apply NOW!

01

Know your fit

Choose whether you are applying under Innovation, Scale or both

02

Tell your story

Share details about your enterprise and solution through a proposal

03

Show the proof

Upload required media and documentation for due diligence

04

Submit & wait

Send in your application before the deadline and see if you get selected!

GUIDELINES FOR YOUR PROPOSAL

SELCO requests enterprises applying to the initiative to present a proposal with a clear plan for innovation and/or scale, supported by objectives, timelines and resource requirements



FOR INNOVATOR PROPOSALS

01

Innovation Concept & Objective

- ✓ State the core idea behind the solution
- ✓ Define the problem, goal for innovation

02

Prototyping & Testing Approach

- ✓ Outline plan for testing the prototype with financial model, timelines and feedback process

03

Regional Focus & Rationale

- ✓ Identify the proposed pilot locations
- ✓ Explain the relevance of selected locations

04

Unit Economics & Pricing

- ✓ Present an indicative cost structure and affordability considerations for users

05

Innovation to Scale Roadmap

- ✓ Define the step-by-step strategy for refining and preparing the solution for scale



GUIDELINES FOR YOUR PROPOSAL



FOR ENTERPRISE PROPOSALS

01

Objective & Solution Specification

- ✓ Define the goal for scale
- ✓ Describe the solution with key technical specifications

02

Scale Approach & Strategy

- ✓ Present overall approach with financial model and timelines
- ✓ State potential partnerships

03

Regional Focus & Rationale

- ✓ Identify and explain why target regions are selected and strategically suited for scaling

04

Stakeholder/ User Access & Adoption

- ✓ Outline processes for reaching end users, partners and accessing support mechanisms

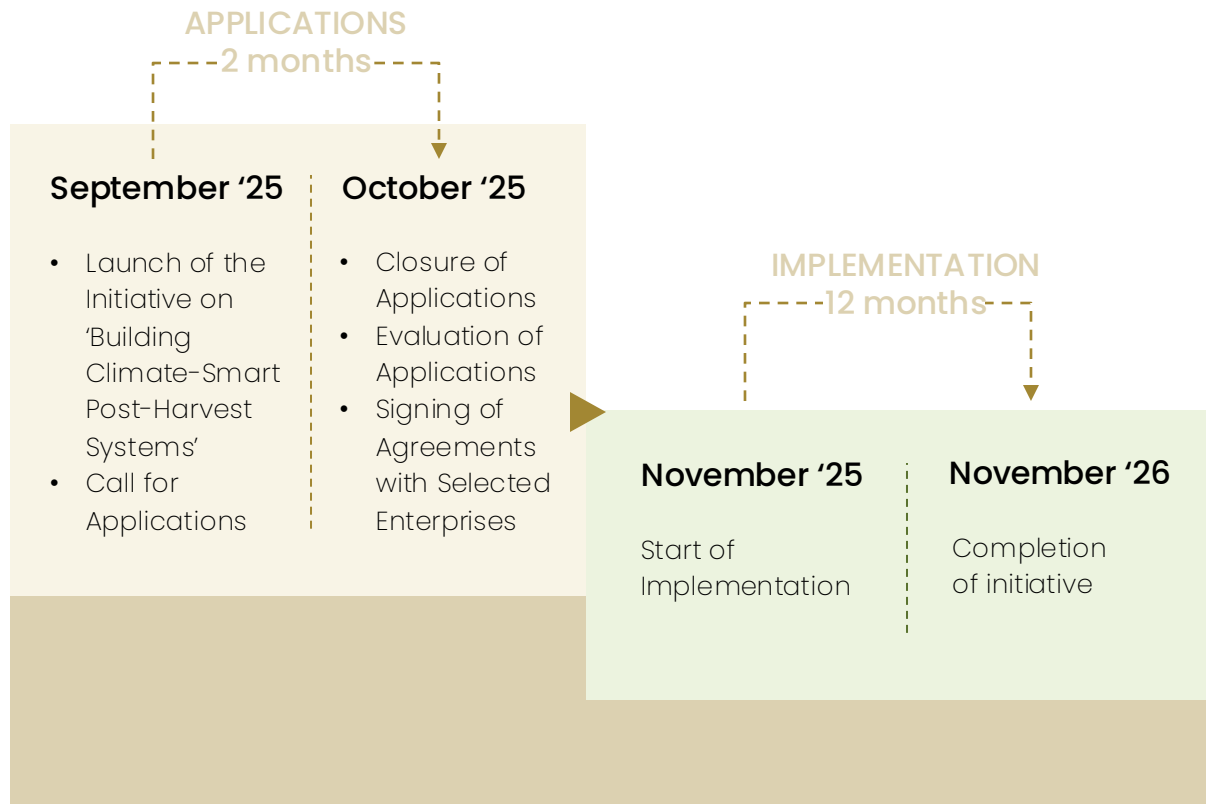
05

Monitoring and Evaluation

- ✓ Define the key evaluation metrics, monitoring approach and feedback loops

TIMELINE FOR THE INITIATIVE

September 2025 to
November 2026



Frequently
Asked
Questions
(FAQs)

Initiative Scope & Eligibility

01

**Is the initiative
an award? Will
I get an
unrestricted
cash prize if I
am selected?**

This initiative is aimed at innovation/scaling and ecosystem building, with support provided for testing, prototyping, deploying solutions, unlocking finance, and outreach. For more information, please refer to the ToR.

02

Who can apply?

- Enterprises at the product development stage with a proof of concept.
- Enterprises looking for field trials, piloting or testing.
- Enterprises with ready-to-scale MVPs for agriculture post harvest processing.
- Developers, integrators or suppliers of energy-efficient and/or DRE powered technologies for primary, secondary and tertiary agricultural processing
- Enterprises catering to local demand
- Enterprises working on futuristic, climate smart technologies
- Enterprises willing to collaborate with NGOs, government, financiers for scaling

This initiative is currently limited to enterprises operating in India.

03

**Are enterprises
from previous
EDP or Catalyse
Tech programs
eligible?**

All enterprises selected under EDP 1,2 3 and Catalyse Tech are eligible to apply, provided they meet the criteria outlined in the ToR. Enterprises with an active service agreement are also eligible, but their proposals must not effect the ongoing plan.

Frequently
Asked
Questions
(FAQs)

Initiative Proposal & Application

01

What is a financial model? How much financial leverage am I expected to bring?

Financial model outlines cost and leverage expectations. During the innovation phase, the enterprise's share of leverage may be higher, whereas in the scale phase, a larger portion of leverage is expected from other stakeholders such as financial institutions, government schemes, NGOs etc.

02

What if my scale strategy doesn't list any government or financial partnerships?

Your enterprise will still be eligible if aligned with the overall scope mentioned in the ToR.

03

How do we apply to the initiative? What are the must have documents?

The ToR for the initiative has been released on SELCO Foundation's website and social media, with a link to the application form. The necessary documents for application are as follows :

- GST Certificate
- Incorporation Certificate
- PAN Card
- Government ID (for individuals)

04

What is expected in proposals?

A clear plan for innovation and/or scale, including objectives, regional focus, adoption plan, partnerships, and financial strategy.

You can refer to the guidelines mentioned in the presentation.

Frequently Asked Questions (FAQs)

Initiative Processes & Selection

01

Who is the jury? What is the selection criteria?

Jury will be composed of members with diverse expertise across technical, programmatic, and operational domains.

Selections criteria will be based upon the scope of work and proposal shared by the enterprise. Following parameters will also be considered :

- Sector Alignment - Enterprises working in agriculture post harvest processing, food processing, retail, or related services.
- For Innovation Proposals - Demonstrated proof of concept showing the solution effectively addresses challenges.
- For Scale Proposals - Deployment-ready, technically sound technologies, with a clear plan for post-installation O&M

02

How will the due diligence be done?

SELCO will collect compliance documents and past work assessment (if needed).



Frequently Asked Questions (FAQs)

Initiative Support & Structure

01

Is the initiative only for new installations?

The initiative has a wide scope of including new and old installations :

- Piloting and/or Prototyping
- Deployment and scaling of technologies
- Integrating Decentralized Renewable Energy (DRE)
- Unlocking relevant schemes and finance
- Conducting Research and Documentation
- Creating Training Modules
- Conducting Awareness and Orientation Workshops
- Applying for Certification and Empanelment of Technologies
- Conducting Marketing and Outreach Activities

02

What is the initiative duration?

This is a year long initiative split into 2 stages as follows :

- Applications (2 months) - September '25 to October '25
- Implementation will be for 12 months starting from November 2025 to November 2026

03

What support beyond financial can I expect?

You can expect support in terms of technical expertise, partnerships, access to networks such as government departments and institutions, scaling support via SELCO's existing programs and additional technology related support.

04

What happens if I don't meet the intended targets or the leverage numbers?

In case of non achievement of deliverables, payment will be withheld with possible contract termination and repayment of unearned funds. SELCO will, however, aim to find collaborative solutions first, adjusting timelines if necessary.

ZeniTEK is involved in the manufacturing of **solar concentrated and non-concentrated thermal collectors. They provide other products as well as turnkey solutions.**

We promise consistent quality product in terms of colour, texture, etc, helping their customers receive better prices for their products

Sun drying protects food products against contamination and breakage, while maintaining its nutritive value. The dryer also reduces drying time.

Technology

Solar Dryer with size ranges between 6, 24, 88 and 100 Sq.ft.

Support Via the Program

- ✓ **Work with local and grassroot NGOs**
- ✓ **Support for conducting three awareness and demonstration programs**
- ✓ **Support for government empanelment**
- ✓ **Identification of users, and deployment of 26 solar dryers**





Enterprise Location
Karnataka

Program Focus Geography
Southern India



ENTERPRISE OF AGRI POST
HARVEST CLIMATE TECHNOLOGY

ALTO Precision develops farming machinery for small-medium farmers, focusing on gaps in agricultural value chains. Our current priority is providing rice farmers in South India with **low-cost, energy-efficient portable rice mills for local processing and value addition.**

We tackle key barriers such as low awareness and poor distribution, high upfront costs and limited financing, operational challenges like costly maintenance and lack of customization, and farmers' cultural preference for traditional manual methods.

Technology

100 to 200 Kg/hour Mini and Micro Solar Powered Rice Mills

Support Via the Program

- ✓ Unlocking PMFME scheme for deployment of rice mills
- ✓ Support for certification and government empanelment
- ✓ Support for conducting awareness and demonstration programs
- ✓ Gap support for the deployment of rice mills



Mini Rice Mill



Micro Rice Mill

TRANSFARM TECHNOLOGIES

Enterprise Location
Andhra Pradesh

Program Focus Geography
Odisha

INNOVATOR OF AGRI POST
HARVEST CLIMATE TECHNOLOGY

Transfarm is at the forefront of **millet processing innovations**. With a strong focus on farmer-centric solutions, we develop customized millet processing technologies tailored to the needs of diverse regions and farming systems.

As part of our growth strategy, we are **integrating solar energy into millet processing solutions**, reinforcing our commitment to climate-smart practices. By piloting these sustainable agri processing solutions we can create a lasting change for both farmers and the environment.

Technology

1. Seed Drill Battery
2. Weeder (0.2 5 Kw DC motor)
3. Grain Filling Machine
4. Colour sorter
5. Aspirator and grader
6. Huller (100 kg/hr)
7. Destoner (100 kg/hr)
8. Polisher (100 kg/hr)

Support Via the Program

- ✓ Support for developing the technology
- ✓ Support for creating training modules and videos

Mini Rice Mill





For contact more information please get in touch

Email: edp@selcofoundation.org

Phone: (+91) 88671 04601

Thank You and Apply Now!

An initiative by **SELCO** Foundation

Last day to apply is 15th October 2025.

Scan to know about the initiative.

